



Practitioner's Docket No. HES 2003-IP-009687H1

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Patent application

of \_\_\_\_\_ Inventor(s)

for \_\_\_\_\_ Title of invention

**OR**

In re application of: Audis C. Byrd et al.

Application No.: 0 10 /601,407

Group Art Unit: 1712

Filed: June 23, 2003

Examiner: unknown

For: Surface Pulse System for Injection Wells

Assistant Commissioner for Patents  
Washington, D.C. 20231

**TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT  
WITHIN THREE MONTHS OF FILING OR  
BEFORE MAILING OF FIRST OFFICE ACTION (37 C.F.R. § 1.97(b))**

**CERTIFICATION UNDER 37 C.F.R. §§ 1.8(a) and 1.10\***

(When using Express Mail, the Express Mail label number is mandatory;  
Express Mail certification is optional.)

I hereby certify that, on the date shown below, this correspondence is being:

**MAILING**

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**37 C.F.R. § 1.8(a)**

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**TRANSMISSION**

☐ facsimile transmitted to the Patent and Trademark Office, (703) \_\_\_\_\_

Sheila Gibbs

Signature

Date: 9-15-03

Sheila Gibbs

(type or print name of person certifying)

\* Only the date of filing (§ 1.6) will be the date used in a patent term adjustment calculation, although the date on any certificate of mailing or transmission under § 1.8 continues to be taken into account in determining timeliness. See § 1.703(f). Consider "Express Mail Post Office to Addressee" (§ 1.10) or facsimile transmission (§ 1.6(d)) for the reply to be accorded the earliest possible filing date for patent term adjustment calculations.

(Transmittal of Information Disclosure Statement Within Three Months of Filing or Before Mailing of First Office Action [6-3]—page 1 of 3)

**NOTE:** 37 C.F.R. 1.98(b):

- (1) Each U.S. patent listed in an information disclosure statement must be identified by inventor, patent number, and issue date.
- (2) Each U.S. patent application publication listed in an information disclosure statement shall be identified by applicant, patent application publication number, and publication date.
- (3) Each U.S. application listed in an information disclosure statement must be identified by the inventor, application number, and filing date.
- (4) Each foreign patent or published foreign patent application listed in an information disclosure statement must be identified by the country or patent office which issued the patent or published the application, an appropriate document number, and the publication date indicated on the patent or published application.
- (5) Each publication listed in an information disclosure statement must be identified by publisher, author (if any), title, relevant pages of the publication, date, and place of publication.

**WARNING:** No extension of time can be had under 37 C.F.R. § 1.136 (a) or (b) for filing an IDS. 37 C.F.R. § 1.97(f).

**NOTE:** The "filing date of a national application" under 37 C.F.R. § 1.97(b) has two possible meanings. Where the filing is a direct one to the United States Patent & Trademark Office, the filing is defined in 37 C.F.R. § 1.53(b) as "the date on which: (1) A specification containing a description pursuant to § 1.71 and at least one claim pursuant to § 1.75; and (2) any drawing required by § 1.81(a), are filed in the Patent and Trademark Office in the name of the actual inventor or inventors as required by § 1.41." 37 C.F.R. § 1.97(b)(1). On the other hand, an international application that enters the national stage occurs when the applicant has filed the documents and fees required by 35 U.S.C. § 371(c) within the periods set forth in § 1.494 or § 1.495. 35 U.S.C. § 371(c) requires the filing of the following: (1) the basic national fee; (2) a copy of the international application, unless already sent by the International Bureau, and optionally an English translation if filed in another language; and, also optionally (3) amendments under PCT Article 19, with a translation into English if made in another language; (4) an oath or declaration; and (5) a translation into English of any annexes to the international preliminary examination report, if such annexes were made in another language. The optional items must be submitted later, with surcharges. 37 C.F.R. § 1.97(b)(2).

### **IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION DISCLOSURE STATEMENT**

The information disclosure statement submitted herewith is being filed within three months of the filing date of the application or date of entry into the national stage of an international application or before the mailing date of a first Office action on the merits, whichever event occurs last. 37 C.F.R. § 1.97(b).

**NOTE:** "No certification or fee is due when the filing is made within the above time period. It is advisable to ensure that no Office action has been mailed if the disclosure statement is delayed until after three months from filing."

**NOTE:** "An information disclosure statement will be considered to have been filed on the day it was received in the Office, or on an earlier date of a mailing if accompanied by a properly executed certificate of mailing under 37 C.F.R. 1.8, or Express Mail certificate under 37 C.F.R. 1.10. An Office action is mailed on the date indicated in the Office action." Notice of April 20, 1992 (1138 O.G. 37-41, 39). See also § 609, M.P.E.P., 8th Edition.

**NOTE:** "The term 'national application' includes continuing applications (continuations, divisions, continuations-in-part) so three-months will be measured from the actual filing date of an application as opposed [sic] to the effective date of a continuing application." Notice of April 20, 1992 (1138 O.G. 37-41, 39).


NOTE: "An action on the merits means an action which treats the patentability of the claims in an application, as opposed to only formal or procedural requirements. An action on the merits would, for example, contain a rejection or indication of allowability of a claim or claims rather than just a restriction requirements (37 C.F.R. 1.142) or just a requirement for additional fees to have a claim considered (37 C.F.R. 1.16(d)). Thus, if an application was filed on Jan. 1 and the first Office action on the merits was not mailed until six months later on July 1, the examiner would be required to consider any proper information disclosure statement filed prior to July 1." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**WARNING:** "A petition for suspension of action to allow applicant time to submit an information disclosure statement will be denied as failing to present good and sufficient reasons, since 37 C.F.R. § 1.97 provides adequate recourse for the timely submission of prior art for consideration by the examiner." Notice of July 6, 1992 (1141 O.G. 63). But see § 103(b) and (c), limited suspension of action in a continued prosecution application (CPA) filed under § 1.53(d) and in a request for continued examination (RCE) under § 1.114.

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PATENT  
HES 2003-IP-009687U1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Audis C. Byrd; David W. Ritter, and )  
Ronald G. Dusterhoft )  
Art Unit: 1712  
Serial No.: 10/601,407 )  
Filed: June 23, 2003 )  
Examiner: Unknown  
For: SURFACE PULSE SYSTEM FOR )  
INJECTION WELLS )

INFORMATION DISCLOSURE STATEMENT

ASSISTANT COMMISSIONER FOR PATENTS  
Washington, D.C. 20231

SIR:

The following documents are known to Applicants or Applicants' attorneys and are submitted for the Examiner to consider in the above-captioned application.

U. S. PATENTS

U.S. Patent No. 4,842,070 issued June 27, 1989 to Kenneth A. Sharp.  
U.S. Patent No. 4,921,576 issued May 1, 1990 to Billy G. Hurd.  
U.S. Patent No. 5,377,756 issued January 3, 1995 to Paul S. Northrop et al.  
U.S. Patent No. 5,697,448 issued December 16, 1997 to Gordon Johnson.  
U.S. Patent No. 5,836,393 issued November 17, 1998 to Howard E. Johnson.  
U.S. Patent No. 6,186,228 B1 issued February 13, 2001 to Dennis C. Wegener et al.  
U.S. Patent No. 6,241,019 B1 issued June 5, 2001 to Brett Charles Davidson et al.  
U.S. Patent No. 6,394,181 B2 issued May 28, 2002 to Mark A. Schnatzmeyer et al.  
U.S. Patent No. 6,405,796 B1 issued June 18, 2002 to Robert J. Meyer et al.  
U.S. Patent No. 6,405,797 B2 issued June 18, 2002 to Brett Charles Davidson et al.

### **OTHER MATERIAL**

Paper entitled "A New Workover Tool for CHOP Well," by M.B. Dusseault, et al. dated 1999, The Petroleum Society Paper 99-77

Paper entitled "A Dynamic Pulsing Workover Technique for Wells," by Maurice B. Dusseault, et al.

Paper entitled "Rehabilitating Heavy Oil Wells Using Pulsing Workovers to Place Treatment Chemicals," by Maurice Dusseault, et al. dated 2001, Petroleum Society, Canadian International Petroleum Conference, Paper 2001-57.

Paper entitled "Improving Fluid Injection in Porous Media Using Pressure Pulsing Technology (PPT™)," Prism Production Technologies, et al.

SPE Paper 58718 entitled "Removing Mechanical Skin In Heavy Oil Wells," by Maurice B. Dusseault, et al. dated 2000.

Paper entitled "Fluid Enhancement Under Liquid Pressure Pulsing at Low Frequency," by Janbin Wang, et al.

Paper entitled "Improving Chemical Workovers Using Pressure Pulsing," by Prism Production Technologies.

Paper entitled "Pressure Pulsing: The Ups and Downs of Starting a New Technology," by Maurice B. Dusseault, et al. Technology Brief, Journal of Canadian Petroleum Technology, Volume 39, No.4, dated April 2000.

Paper entitled "Pressure Pulse Technology (PPT) for Recovery of Non-Aqueous Phase Liquids," Wavefront Environmental Technology Profiles, Oceta Environmental Technology Profiles, available at [http://www.oceta.on.ca/profiles/Wavefront/PPT\\_tech.html](http://www.oceta.on.ca/profiles/Wavefront/PPT_tech.html).

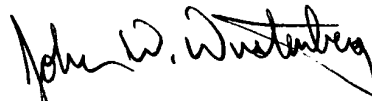
Paper entitled "Saffman-Taylor instability in porous layer-Viscous fingering," from  
"Notes on 1.63 Advanced Environmental Fluid Mechanics" by C.C. Mei, dated November 2002.

Paper entitled "IOR-07 Pulse Injection Technology for IOR," by A.S. Cable, et al. 11<sup>th</sup>  
European Symposium on Improved Oil Recovery, dated June 2001.

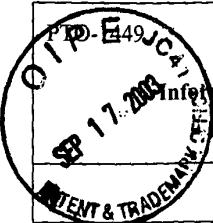
Paper entitled "Reverse circulation drilling avoids damage to low-pressure gas  
reservoirs," by Paul Mackay, Petroleum Technology Digest for Independent Producers, World  
Oil, dated March 20, 2003.

Copies of the aforementioned non-patent references and Form PTO-1449 are submitted  
herewith.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John W. Wustenberg". The signature is fluid and cursive, with a long horizontal stroke at the end.

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580-251-3782

	Application No. 10/601,407		Applicant(s): AUDIS C. BYRD ET AL.	
	Docket Number HES 2003-IP-009687U1		Group Art Unit 1712	Filing Date June 23, 2003

Information Disclosure Citation  
in an Application

## U.S. PATENT DOCUMENTS

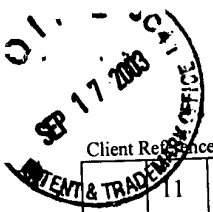
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
1	4,842,070	06/27/89	Sharp	166	288	09/15/88
2	4,921,576	05/01/90	Hurd	166	270	04/20/89
3	5,377,756	01/03/95	Northrop	166	267	10/28/93
4	5,697,448	12/16/97	Johnson	166	369	11/29/95
5	5,836,393	11/17/98	Johnson	166	308	03/19/97
6	6,186,228 B1	02/13/01	Wegener, et al.	166	249	12/01/98
7	6,241,019 B1	06/05/01	Davidson, et al.	166	249	03/24/98
8	6,394,181	05/28/02	Schnatzmeyer, et al.	166	250.15	07/27/01
9	6,405,796 B1	06/18/02	Meyer, et al.	166	249	10/30/00
10	6,405,797 B2	06/18/02	Davidson, et al.	166	249	04/09/01

## FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO

## NON-PATENT DOCUMENTS

	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)	DATE
1	M.B. Dusseault, et al. "A New Workover Tool for CHOP Wells," The Petroleum Society Paper 99-77	1999
2	Maurice B. Dusseault, et al. "A Dynamic Pulsing Workover Technique for Wells"	
3	Maurice Dusseault, et al. "Rehabilitating Heavy Oil Wells Using Pulsing Workovers to Place Treatment Chemicals," Petroleum Society, Canadian International Petroleum Conference, Paper 2001-57	2001
4	Prism Production Technologies Inc., et al. "Improving Fluid Injection in Porous Media Using Pressure Pulsing Technology (PPT™)"	
5	Maurice B. Dusseault, et al. "Removing Mechanical Skin in Heavy Oil Wells," SPE Paper 58718	2000
6	Janbin Wang, et al. "Fluid Enhancement Under Liquid Pressure Pulsing at Low Frequency"	
7	Prism Production Technologies "Improving Chemical Workovers Using Pressure Pulsing"	
8	Maurice Dusseault, et al. "Pressure Pulsing: The Ups and Downs of Starting a New Technology," Technology Brief, Journal of Canadian Petroleum Technology, Volume 39, No. 4	April 2000
9	Wavefront Environmental Technologies, Inc. "Pressure Pulse Technology (PPT) for Recovery of Non-Aqueous Phase Liquids," Oceta Environmental Technology Profiles, available at <a href="http://www.oceta.on.ca/profiles/Wavefront/PPT_tech.html">http://www.oceta.on.ca/profiles/Wavefront/PPT_tech.html</a>	April 16, 2003
10	C. C. Mei, "Saffman-Taylor instability in porous layer-Viscous fingering," from "Notes on 1.63 Advanced Environmental Fluid Mechanics."	November 2002



PATENT

Client Reference No. 2003-IP-009687

11	A. S. Cable, et al. "IOR-07 Pulse Injection Technology for IOR," 11th European Symposium on Improved Oil Recovery	June 2001
12	Paul Mackay, "Reverse circulation drilling avoids damage to low-pressure gas reservoirs," Petroleum Technology Digest for Independent Producers, World Oil	March 20, 2003
EXAMINER		DATE CONSIDERED
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.		